

IMAGING SYSTEM FOR ROBOTICALLY INSPECTING GAS TURBINE COMBUSTION COMPONENTS

Abstract

A system for in situ inspection of a surface of a hot gas component of a turbine includes a robot having an elongated inspection arm extending toward the surface of the hot gas component; and an inspection head carried adjacent an end of the inspection arm remote from controls for the robot. The inspection head is manipulated by the inspection arm to locate the inspection head adjacent interior wall portions defining the hot gas component including by displacing the inspection head in a generally axial direction and generally radially toward a wall portion of the hot gas component being inspected. The inspection head is configured with a UV system to excite and detect fluorescence from a taggant material disposed in a coating on the hot gas component.